



Yoke and stud type track rollers

in X-life quality

Product overview

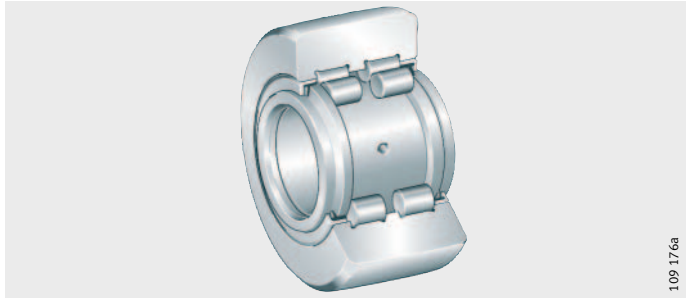
Yoke type track rollers

Stud type track rollers

Yoke type track roller

Full complement
cylindrical roller set,
with central rib
Protected lip seals

PWTR...-2RS

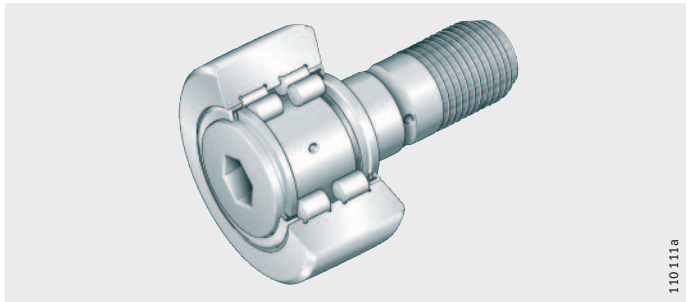


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Stud type track roller

Full complement
cylindrical roller set,
with central rib
Protected lip seals

PWKR...-2RS



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Yoke type track rollers

Stud type track rollers

Features

The new X-life yoke and stud type track rollers PWTR and PWKR have been improved in several respects and, as a result, give even higher performance.

Yoke type track rollers

Yoke type track rollers of series PWTR are double row units mounted on shafts or studs. They comprise thick-walled outer rings with a profiled lateral surface and full complement cylindrical roller sets. Bearings without a cage have the largest possible number of rolling elements and therefore have particularly high load carrying capacity. They can support high radial loads as well as axial loads arising from slight misalignment and skewed running; they are suitable for cam gears, bed ways, conveying equipment etc.

Stud type track rollers

Stud type track rollers PWKR comprise thick-walled outer rings with a profiled lateral surface, solid section roller studs with a fixing thread, axial washers and full complement cylindrical roller sets. They can support high radial loads as well as axial loads arising from slight misalignment and skewed running.

Lateral surface profile of the outer ring

In most cases, yoke and stud type track rollers with a crowned lateral surface are used since they are often inclined in relation to the mating track and edge stresses must be avoided.

In series PWKR and PWTR, the lateral surface has the optimised INA profile.

X-life

Due to a modified material and the optimised raceway geometry of the outer rings, the basic rating life has been increased by up to 30%.

The static and dynamic load carrying capacity has also been increased. At the same time, the stress placed on the mating track has been reduced as a result of the optimised lateral surface profile and its improved surface quality.

This gives a highly robust bearing arrangement with an extended operating life.

Yoke type track rollers

Stud type track rollers

Anti-corrosion protection

In principle, corrosion-resistant steels may be used for yoke and stud type track rollers. In many applications, however, the special coating Corrotect® is more cost-effective.

The coating is effective against moisture, contaminated water, salt spray and weakly alkaline or weakly acidic cleaning agents. For a description of the Corrotect® coating, see TPI 64, Corrosion-resistant products.

With the introduction of the X-life variant, the X-life yoke type track rollers PWTR..-RR and stud type track rollers PWKR..-RR will be coated as standard with the anti-corrosion coating Corrotect® free from chromium(VI).

Anti-wear protection

If a high level of anti-wear protection is required, the X-life yoke type track rollers PWTR and stud type track rollers PWKR can also be supplied by agreement with the TRIONDUR coating.

For further information on the coating, see TPI 64, Corrosion-resistant products.

Radial internal clearance

The radial internal clearance corresponds approximately to tolerance class C2.

Sealing and lubrication

Yoke and stud type track rollers are sealed on both sides by protected lip seals.

They are greased using a lithium complex soap grease to GA08 and can be lubricated via the roller stud. For relubrication, Arcanol LOAD150 is suitable.

Operating temperature

The bearings are suitable for temperatures from -30 °C to +120 °C.

Suffixes

Suffixes for available designs: see table.

Available designs

Suffix	Description
RR	Protected against corrosion by special coating Corrotect®
2RS	Protected lip seals on both sides of the yoke type track roller

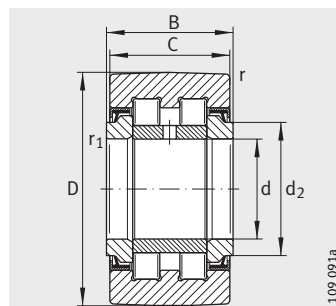
Further information

Caution!

For information on the load carrying capacity and life, design of bearing arrangements, lubrication, fitting and operation of the bearings, attention must be paid to Catalogue HR 1, Rolling Bearings.

Yoke type track rollers

Sealed



PWTR...-2RS
(optimised INA profile)

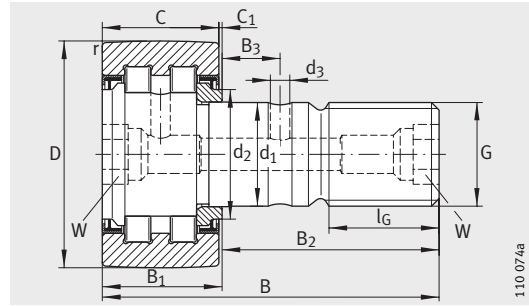
Dimension table - Dimensions in mm

Designation	X-life	Mass m ≈ g	Dimensions							Basic load ratings ¹⁾				Fatigue limit load C _{urw} N	Speed n _{DG} min ⁻¹
			D	d	B	C	d ₂	r	r ₁	dyn. C _{rw} N	stat. C _{0rw} N	dyn. F _{rper} N	stat. F _{0rper} N		
PWTR15-2RS	XL	99	35	15	19	18	20	0,6	0,3	12 600	14 600	10 600	14 600	1 760	6 000
PWTR17-2RS	XL	147	40	17	21	20	22	1	0,5	14 300	18 000	16 400	18 000	2 160	5 000
PWTR1542-2RS	XL	158	42	15	19	18	20	0,6	0,3	14 700	16 200	16 200	16 200	2 140	6 000
PWTR1747-2RS	XL	220	47	17	21	20	22	1	0,5	15 900	18 400	18 400	18 400	2 440	5 000
PWTR20-2RS	XL	245	47	20	25	24	27	1	0,5	24 600	30 500	20 700	30 500	3 750	3 800
PWTR2052-2RS	XL	321	52	20	25	24	27	1	0,5	27 000	35 000	31 000	35 000	4 250	3 800
PWTR25-2RS	XL	281	52	25	25	24	31	1	0,5	25 500	33 000	21 800	33 000	4 100	3 800
PWTR2562-2RS	XL	450	62	25	25	24	31	1	0,5	30 000	42 500	42 500	42 500	5 200	3 800
PWTR30-2RS	XL	465	62	30	29	28	38	1	0,5	35 000	45 500	29 000	45 500	5 800	2 200
PWTR3072-2RS	XL	697	72	30	29	28	38	1	0,5	41 000	56 000	54 000	56 000	7 200	2 200
PWTR35-2RS	XL	630	72	35	29	28	44	1,1	0,6	38 500	54 000	39 000	54 000	7 000	1 800
PWTR3580-2RS	XL	836	80	35	29	28	44	1,1	0,6	43 500	64 000	59 000	64 000	8 100	1 800
PWTR40-2RS	XL	816	80	40	32	30	50,5	1,1	0,6	45 000	61 000	39 500	61 000	7 900	1 500
PWTR45-2RS	XL	883	85	45	32	30	55,2	1,1	0,6	45 500	63 000	41 000	63 000	8 200	1 300
PWTR4090-2RS	XL	1129	90	40	32	30	50,5	1,1	0,6	52 000	75 000	67 000	75 000	9 700	1 500
PWTR50-2RS	XL	950	90	50	32	30	59,8	1,1	0,6	46 000	66 000	42 000	66 000	8 500	1 100
PWTR45100-2RS	XL	1396	100	45	32	30	55,2	1,1	0,6	56 000	85 000	85 000	85 000	10 900	1 300
PWTR50110-2RS	XL	1690	110	50	32	30	59,8	1,1	0,6	59 000	94 000	94 000	94 000	12 100	1 100

¹⁾ Values are only valid for bearings marked as X-life.

Stud type track rollers

Sealed



PWKR...-2RS
(optimised INA profile)

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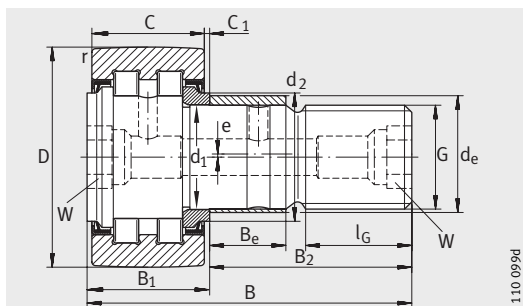
Dimension table · Dimensions in mm

Designation	X-life	Mass m ≈ g	Dimensions											
			D	d ₁ h7	B	B ₁ max.	B ₂	B ₃	C	C ₁	r min.	d ₂	d ₃	G
PWKR35-2RS	XL	164	35	16	52	19,6	32,5	7,8	18	0,8	0,6	20	3	M16X1,5
PWKRE35-2RS	XL	177	35	16	52	22,6	29,5	–	18	3,8	0,6	27,6	–	M16X1,5
PWKR40-2RS	XL	242	40	18	58	21,6	36,5	8	20	0,8	1	22	3	M18X1,5
PWKRE40-2RS	XL	258	40	18	58	24,6	33,5	–	20	3,8	1	30	–	M18X1,5
PWKR47-2RS	XL	380	47	20	66	25,6	40,5	9	24	0,8	1	27	4	M20X1,5
PWKRE47-2RS	XL	400	47	20	66	25,6	40,5	9	24	0,8	1	27	4	M20X1,5
PWKR52-2RS	XL	450	52	20	66	25,6	40,5	9	24	0,8	1	31	4	M20X1,5
PWKRE52-2RS	XL	470	52	20	66	25,6	40,5	9	24	0,8	1	31	4	M20X1,5
PWKR62-2RS	XL	795	62	24	80	30,6	49,5	11	28	1,3	1	38	4	M24X1,5
PWKRE62-2RS	XL	824	62	24	80	30,6	49,5	11	28	1,3	1	38	4	M24X1,5
PWKR72-2RS	XL	1 020	72	24	80	30,6	49,5	11	28	1,3	1,1	44	4	M24X1,5
PWKRE72-2RS	XL	1 050	72	24	80	30,6	49,5	11	28	1,3	1,1	44	4	M24X1,5
PWKR80-2RS	XL	1 600	80	30	100	37	63	15	35	1	1,1	47	4	M30X1,5
PWKRE80-2RS	XL	1 670	80	30	100	37	63	15	35	1	1,1	47	4	M30X1,5
PWKR90-2RS	XL	1 960	90	30	100	37	63	15	35	1	1,1	47	4	M30X1,5
PWKRE90-2RS	XL	2 020	90	30	100	37	63	15	35	1	1,1	47	4	M30X1,5

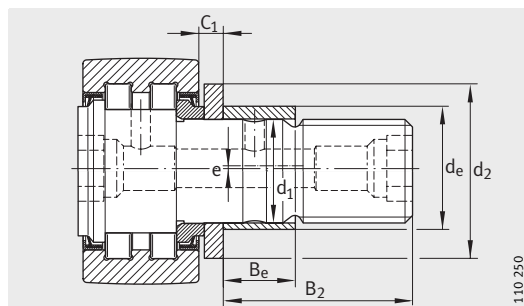
1) Drive fit lubrication nipples are supplied loose. Only these lubrication nipples should be used.

2) Nominal dimension for hexagonal socket.

3) Values are only valid for bearings marked as X-life.



PWKRE..-2RS
(optimised INA profile)



PWKRE35-2RS, PWKRE40-2RS
(optimised INA profile)

l_G	$W^{2)}$	Eccentric collar			Drive fit lubrication nipple ¹⁾	Nut tightening torque M_A Nm	Basic load ratings ³⁾				Fatigue limit load C_{Urw} N	Speed limit n_{DG} min ⁻¹
		d_e h9	B_e	e			dyn. C_{Rw} N	stat. C_{0rw} N	dyn. F_{Rper} N	stat. F_{0per} N		
17	8	-	-	-	NIPA2X7,5	58	12 600	14 600	10 600	14 600	1 760	6 000
17	8	20	12	1	NIPA2X7,5	58	12 600	14 600	10 600	14 600	1 760	6 000
19	8	-	-	-	NIPA2X7,5	87	14 300	18 000	16 400	18 000	2 160	5 000
19	8	22	14	1	NIPA2X7,5	87	14 300	18 000	16 400	18 000	2 160	5 000
21	10	-	-	-	NIPA2X7,5	120	24 600	30 500	20 700	30 500	3 750	3 800
21	10	24	18	1	NIPA2X7,5	120	24 600	30 500	20 700	30 500	3 750	3 800
21	10	-	-	-	NIPA2X7,5	120	25 500	33 000	21 800	33 000	4 100	3 800
21	10	24	18	1	NIPA2X7,5	120	25 500	33 000	21 800	33 000	4 100	3 800
25	14	-	-	-	NIPA3X9,5	220	35 000	45 500	29 000	45 500	5 800	2 200
25	14	28	22	1	NIPA3X9,5	220	35 000	45 500	29 000	45 500	5 800	2 200
25	14	-	-	-	NIPA3X9,5	220	38 500	54 000	39 000	54 000	7 000	2 200
25	14	28	22	1	NIPA3X9,5	220	38 500	54 000	39 000	54 000	7 000	2 200
32	14	-	-	-	NIPA3X9,5	450	56 000	79 000	60 000	79 000	10 600	1 800
32	14	35	29	1,5	NIPA3X9,5	450	56 000	79 000	60 000	79 000	10 600	1 800
32	14	-	-	-	NIPA3X9,5	450	62 000	92 000	92 000	92 000	12 300	1 800
32	14	35	29	1,5	NIPA3X9,5	450	62 000	92 000	92 000	92 000	12 300	1 800

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